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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/501,013

01/21/2005

Mario Magaldi

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EXAMINER

BHAT, NINA NMN

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,013	Applicant(s) MAGALDI ET AL.	
	Examiner N. Bhat	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-10 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In all of the claims applicant has used "characterized in that" language which has been used in patents however, it is position taken by the examiner that applicant should amend "characterized in that" to --wherein-- which is language which is clear, positive and meaningful and definite language. Appropriate correction is required. In claim 2, it is unclear what is meant by the filtering system ...of the whole system. Applicant is strongly urged when drafting the claims to show the operative connection between the elements of the system. In claim 2, where is the filtering system located with respect to the elements of the invention. In claim 4, applicant recites a device made of a drilled belt conveyor. It is immaterial to the apparatus how a belt conveyor is made perhaps there is merely a translation problem taking place but the does applicant meant that the belt conveyor has apertures? Suitable explanation and correction is required.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lah, US Patent 6,565,714 in combination with Casey et al. US Patent 7,108,793.

Lah teaches the invention substantially as claimed. Specifically, Lah teaches a system which removes coke from a delayed coker vessel. Lah teaches a system of removing the covers of the delayed coking vessel called "de-heading" and teaches that once the head of the vessel is removed, the coke is removed from the drum by drilling a pilot hole from top to bottom of the coke bed using high pressure water jets. The remaining body of coke left in the coke drum is cut into fragments which fall out bottom and into a collection bin such as a bin on a rail cart. The coke is dewatered, crushed and sent to coke storage or loading facilities.[Note Column 7, lines 54-65]

However, Lah does not teach specifically the extraction, drainage and wet transport of the petroleum coke as described by applicant.

Casey et al teach a system for separating liquid from a liquid laden solid material which includes providing a trough having a deck defining a support surface with passages extending through the support. The liquid laden solid material is deposited on the support surface so that the liquid laden solid material is supported by the support surface. A vibratory force is applied to the deck to separate a substantial portion of the liquid from the liquid laden solid material, that liquid is separated/draind and removed and the solid material is conveyed along the support surface to a solids discharge point.[Note the abstract]. Casey et al. teach that the vibratory apparatus conveyor is used in a petroleum coke dewatering process, wherein the coke which is removed to a delayed coker. The vibratory separating apparatus (10) includes a first separating unit (12) having a trough (14) supported by a frame (16). The trough is oriented on an incline so that a first end is positioned below a second end. The incline is constructed and arranged to advance the solid material up the incline and increase the dwell time. The exciter is oriented so

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that the vibratory motion created by the drive imparts a conveying motion in order to remove liquid from the liquid laden solid material. A second separating unit (28) further included which includes a trough and conveyor which is also vibrated it is connected to a frame assembly.

Casey et al teach that during operation a coking drum is position over the hopper (26) of the vibratory separating apparatus the hopper assisting in directing the water laden petroleum coke toward a central portion of the trough of the first separating unit. The V-shaped angles are attached to the base and extend longitudinally along the length of the trough and support the coke above the base of the trough and allow water to drain from the coke to the trough base. The included trough permits the water to drain and discharges via chute(23). The petroleum coke is advanced toward the trough second end as a result of the vibratory motion which is then subjected to the econ separating unit (28) wherein additional liquid is removed. The petroleum coke is discharged from the trough onto a vibratory conveyor, receptor or other transport for further processing. Casey et al. further teach that the frames which is attached to the liquid separating units can include wheel or rotating or translating frames can be used.[Note Column2, lines 22-67 and Column 4, line 46-67] Casey et al. further teach that the vibratory force to the support surface assist gravity in separating liquid from the liquid laden solid material and drives fines suspended in the liquid down through the liquid laden solid material. As the fines travel downward, the fines stick together to agglomerate and then are conveyed with the rest of the solid material. [Note Column 5, lines 20-35]

It would have been obvious from the combined teachings of Lah and Casey et al. to provide an extraction drainage and wt trans portion of petroleum coke which includes a pre-crusher, drainage hoppers and conveying systems which will permit drainage of the quenched coke which permits drainage and ultimate transport of the coke to storage. The concept of removing the coke from the coke drum using high pressure water nozzles and quenching the

coke and then connecting the deheading equipment with the collection system is broadly taught in Lah. The specifics of actually transporting coke from a delayed coker have been taught in the Casey et al. Casey et al. teaches an apparatus and process which includes a hopper which in connection with the coker, the system includes a draining systems which includes a vibratory support conveyance system and the device is capable of removing water from the coke and draining the coke for further transport and therefore is capable of functioning and effecting extraction, draining and wet transport of petroleum coke. With respect to applicant specifics regarding the pre-crusher and the rubber belt, Lah teaches that the coke from the delayed coker is crushed prior to storage and transport. With respect to the specific belt construction again this would have been obvious to one familiar with transport of coke from a delayed coker to a transport or storage facility and would not the limitation of the belt being constructed of rubber would not impart patentability to the claims as the material of construction is an obvious expedient to one familiar in conveyance of liquid laden solid material. It is maintained that when reading Lah in combination with Casey et al. applicant's apparatus is rendered obvious as a whole to one having ordinary skill in the art at the time the invention was made.

4. Claims 5-7 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art fails to teach and or suggest that the belt conveyor is equipped with a high pressure nozzles for cleaning the traction drum of the return stretch(34) of the belt conveyor and the collection channel respectively as claimed.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Deering teach a system for removing solids form a solids up flow vessel. Barkdoll teach a method and apparatus for coal coking. Thompson teach a coke oven pushing and

charging machine which includes a cola endlesscchange covneyor havining a weidth
substatially equal to the wiedzth of the coking chambers for filling and copacting the coke.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. Bhat/
Primary Examiner, Art Unit 1797